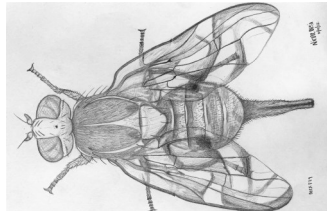


# San Diego County

## Entomology Newsletter



Mexican Fruit Fly by N. Orsi

FALL 2022

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### Invasive Pest Alert — Pine Tortoise Scale

Back in 2021, San Diego County had its first report of the Pine Tortoise Scale (*Toumeyella parvicornis*, Hemiptera: Coccidae; A-rated). This is a scale native to the Eastern US that feeds on and causes severe damage to several Pine tree species (most notably Stone Pine in our county). In the last few months, the Entomology Lab has received samples of pines infested with this scale from various places across the county. In response to these findings, the lab has been surveying neighborhoods throughout San Diego to try and get an idea of how far the infestations span. While doing these surveys, we have found evidence suggesting that these scales are being predated upon by both parasitoids and ladybugs. Since ants feed on scale honeydew, they are very protective of scales and attack anything that tries to predate upon them. In a feat of evolution, the larvae of *Hyperaspis* sp. ladybugs look nearly identical to harmless (from a scale's perspective) mealybugs; allowing them to feed on scales while going unrecognized by ants. Truly wolves in sheep's clothing!



Pine tortoise scale infestation on stone pine. Photo: N. Orsi

### Apiary Program Updates



A frame of brood & adult bees as seen during an inspection. Photo: J. Garza

In Bee news, Apiary Inspector Jaime Garza attended the Center for Integrative Bee Research (CIBER) Bee Health Conference at UC Riverside. Some key highlights from this event were that UC Davis, UC Merced, UC Riverside, and UC San Diego are all working together to address bee health issues, UC Davis is running a study on bee breeds, and most locally interesting—UC San Diego found honey bee genetics to be most diverse in the San Diego area compared to other locations sampled.

Beekeepers also have an emerging pest to be on the lookout for—the Tropilaelaps mite. This mite is native to Asia where it is a parasite of Asian honey bees, but it also has the potential to cause significant damage to European honey bee colonies by feeding on the hemolymph of developing bees. Fortunately, this mite has not yet been found in the US.

### Lab Updates & Outreach Events

At the beginning of this fall season the Entomology Lab had a new intern join us who will be working alongside us and other AWM divisions for the next few weeks. Sami Jalel is a recent San Diego State University graduate who majored in Environmental Science. He is very interested in bees and has already joined Apiary Inspector Jaime Garza on a ride along and attended a San Diego Beekeeping Society meeting. Sami is a great addition to the lab and we look forward to working with him during his time with the County.



Dr. Bodil Cass presenting at the Professional Tree Care Association Conference. Photo: J. Garza

In Outreach, Agricultural Scientist Dr. Bodil Cass presented at the *Professional Tree Care Association Annual Conference* for licensed arborists with roughly 220 industry attendees.

Dr. Cass's talk covered pest alerts, how to submit samples and types of samples accepted, and how to do bee checks. There was a lot of interest in our booth which showcased different types of tree pests such as the South American Palm Weevil, Invasive Shot Hole Borer, and Gold Spotted Oak Borer, among others.

### Favorite Samples & Acknowledgements

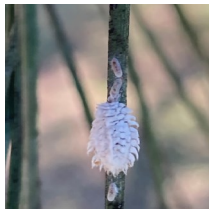
Thank you to everyone who has submitted potentially invasive pest samples for identification. Pictured here are some of the most exciting insects from the last few months: a whitefly pupa, a parasitized pine tortoise scale, the mealybug mimicking *Hyperaspis* sp., and our personal favorite—the Splendid Tamarisk Weevil (pictured to the right) with its glittery green and blue scales. This tiny weevil is non-native and was found in an invasive shot hole borer trap.



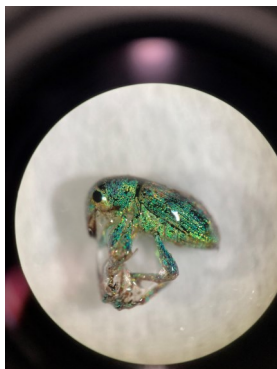
Whitefly pupa (Aleuroplatus sp., Hemiptera: Aleyrodidae). Photo: N. Orsi



Parasitized pine tortoise scale (*Toumeyella parvicornis*, Hemiptera: Coccidae). Photo: N. Orsi



Mealybug Mimicking Ladybug Larvae (*Hyperaspis* sp., Coleoptera: Coccinellidae). Photo: N. Orsi



Splendid Tamarisk Weevil (*Coniatus splendidulus*, Coleoptera: Curculionidae). Photo: N. Orsi

## Contact the Lab or Apiary Program

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